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## USAF SENIOR NONCOMMISSIONED OFFICER ACADEMY (AU)

EVOLUTION OF AIR WEATHER SERVICE WITH EMPHASIS ON ENLISTED PARTICIPATION

by

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Air Weather Service, as a military organization, has evolved over the last two centuries from an unorganized civilian interest in the weather in the earlier days, to a highly organized and specialized service today. Enlisted members have been a large part of the development and have been involved in providing weather services from the very beginning. This paper will take a look at the evolution of Air Weather Service, from its inception to the current reorganization, with a focus on enlisted participation where possible.

The two weather services in the United States today, Air Weather service and the Weather Bureau, share the same history up until 1917. Since there was no organized weather service in early American times, the only form of gathering weather information from 1644 through 1819 was by citizens who took a special interest. These people were primarily doctors, scientists, and other prominent members of the society of the time. The first weather recorded on the North American continent was by Reverend John Campanius in 1644. Some of the more famous early Americans who took an interest in and studied weather through their own involvement were Benjamin Franklin, Thomas Jefferson, and James Madison. The first organized weather observations were taken by hospital surgeons beginning in 1814 at the direction of the Army's Surgeon General, James Tilton. The first Army regulation setting up a weather observation system took effect in 1819 as a result of a recommendation from the Surgeon General's office.

The next significant step was the establishment, under the Surgeon General's office, of a "Meteorologist to the U.S. Government" by Congress in 1842 (4:1). From 1819 until 1870, the Medical Department of the Army operated the best weather observation network in the country (10:4). In 1870, Congress directed the War Department to establish a functioning service to take weather

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observations at the military stations and to relay notices of the "approach and force of storms." This responsibility was given to the Signal Corps.

This weather service grew rapidly and set up numerous observing sites across the United States and even established an extensive observing network across Alaska (4:1). At the same time, the Signal Corps established the first national forecasting service in the country (10:4).

The next major step in the evolution of Air Weather Service was creation of the Weather Bureau under the Department of Agriculture in 1890 as a result of a Congressional Act. As a result, the previous system as run by the Signal Corps, was turned over to the Department of Agriculture (4:1). This ended almost all military weather service and kept the Army out of touch with developments in the weather field. World War I dictated the need for Army weather support again, mainly because the air began to be used as a battleground (10:4). This need was answered by the creation of the Weather Service of the United States Army in 1917 under the Chief Signal Officer (4:2). To accomplish their many and varied tasks, a group made up of predominantly enlisted members, 475 as opposed to only 27 officers was assigned. The training of these new weathermen was accomplished by sending them to Weather Bureau stations for 8 to 10 weeks (10:4). The first military weather station was set up at Fort Omaha, Nebraska in November 1917 by nine of these newly recruited and trained weathermen. The first overseas American weather station was set up in France in cooperation with the French and British meteorological services (4:2).

More training was required because of increasing demands for weather services to support the war efforts. As a result, the first school for enlisted weather observers was established at Camp McArthur, Texas in 1918.

This "Signal Corps School of Meteorology," which lasted 2 months was composed of approximately 300 men, all enlisted, between the ages of 21 and 31, and all with either several years of training as observers with the Weather Bureau, or college graduates. The training of 550 men was accomplished at this school prior to its closing after the Armistice. // Following the end of World War I, the need for military weather services again dwindled. A school for Signal Corps enlisted men was set up at Camp Alfred Vail, New Jersey in 1920. This school had a shakey record. Lessons were taught on a high school level because of poor academic preparation of the enlisted members who were assigned to attend the school. Most enlisted forecaster and observer training was shifted to Fort Monmouth, New Jersey in 1926. There was some weather training conducted strictly as on-the-job training at air bases (10:5,6). The Meteorological Section, Signal Corps, was seen as necessary for the development of aviation, but along with aviation, grew slowly (4:iv). There were only approximately 160 enlisted weathermen and 6 weather officers in 1935. Weather taining was very much neglected by the Army up until 1937 In 1937, the determination was made by the Assistant Chief of Staff of the War Department General Staff that 95% of the weather service provided by the Army was used by the Air Corps. As a result, a group composed overwhelmingly of enlisted men, 180 as opposed to 22 officers was shifted to the Air Corps on 1 July 1937. This date is recognized as the birthday of the current Air Weather Service (4:iv). A new appreciation for weather services grew during this period, and a forecaster was even assigned to fly on the "Flying Fortress" to keep the pilot or flight commander aware of any changing weather conditions (9:3).

In 1942, an office of the Directorate of Weather was created and was

tasked with reorganization of the entire administration of the Army Air Force weather service. This office was abolished in March of 1943 and the weather functions were assigned to five weather sections in the Air Staff. In April of the same year, the Weather Wing was activated in Asheville, North Carolina to administer weather service. In July, the Weather Wing was reassigned directly to Headquarters, Army Air Force (10:4). World War II brought about a drastic increase in the demand for weather services and strength grew from less than 200 men in 1937 to 20,000 at armistice (10:7). Formalized weather training was required to keep up with demands and after several moves which included observer training at Patterson Field, Ohio, and forecaster training at Scott AFB, Illinois, finally settled down at Chanute AFB, Illinois. Both forecaster and observer training were conducted at Chanute beginning in 1940, but were conducted separately because of the greater difficulty of forecasting as opposed to observing the weather. Observer school lasted for five months and forecaster school was for nine months. Enlisted men who completed these courses were assured an "excellent opportunity for advancement in the noncommissioned grades" (8:--).

Following World War II, there was a lot of controversy as to how to organize the newly created AAF Weather Service. The manpower had dropped from 20,000 to 4,198 on 30 June 1946 as a result of separations following the war. The plan was implemented to maintain the network of meteorological facilities which had been created by the war. This required many more weathermen than remained, so efforts were made to attract both officers and enlisted members to the career field. The schools set up at Chanute AFB were to be used extensively to train enlisted members to fill the requirements (10:169-171). The observer course was opened to three year enlistees with Army General

Classification Test (AGCT) results of 100 or better. Observer training consisted of elementary meteorology, installation, care, and handling of weather instruments and equipment, surface observing, and other weather station operating functions. Forecaster training required an entry score of 110 on the AGCT and included training in science, chemistry, physics, and other courses related to meteorology (5:371-376).

The Army Air Forces Weather Service, as it had become known in 1945, was moved from Asheville, North Carolina and relocated at Langley AFB, Virginia on 7 January 1946. On 13 March 1946, it was redesignated as Air Weather Service (AWS) and assigned to the Air Transport Command. The next move was to Gravelly Point, Virginia on 14 June 1946 where it was reassigned to the Military Air Transport Service which later became the Military Airlift Command of today. AWS then moved to Andrews AFB, Maryland in 1948 and then to its current home at Scott AFB, Illinois in 1958 (4:94).

In 1974, AWS launched a program to qualify all enlisted weather personnel as both observers and forecasters by the early  $1980\mathcal{D}_{S}$ . This did away with the dual career ladder of either observing or forecasting and made it mandatory for career airmen to pass through the observing phase early in their careers and then move on to forecasting (3:39).

Drastic changes are now underway as a result of General McPeak's reorganization of the Air Force. AWS is no exception, and on 1 April 1991, became a Field Operating Agency of the Air Force, breaking a 45 year tie to the Military Airlift Command (1:2). According to Chief Danny Milner, the AWS Senior Enlisted Adviser, NCOs will be assuming new, more responsible positions as a result of the reduction of the officer versus enlisted ratio. Command positions are opening up for senior NCOs (6:2). The realignment within the

Air Force will allow the bases to absorb the weather detachments into the Wings. AWS as it now stands will be going away with the exception of the Army support units (7:2). As the AWS Commander, Colonel George L. Frederick Jr. says, "we are at the end of an era. Change is everywhere in the world. We in AWS look forward to challenges which lie ahead" (2:2).

Air Weather Service has had a long and noble history. Although it now appears to be falling apart structurally, there remains the need for weathermen. Enlisted members have always been, and will always be the backbone of weather support to the Air Force and Army. Many of the articles pertaining to the history of AWS omitted the mention of enlisted contributions, but when the numbers of enlisteds as opposed to officers is considered during the tremendous growth and vast accomplishment periods, it becomes extremely obvious where the credit for success lies.

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